

Amendments to the Claims

Claims 12-16 have been amended.

1. (Original) A pressure transducer assembly, comprising:

a pressure transducer, the transducer generating a first output signal representative of a sensed pressure;

a shaping circuit, the circuit generating a second output signal in response to the first output signal, the second output signal being generated according to a first function of the first output signal when the first output signal is less than a first value, the second output signal being generated according to a second function of the first output signal when the first output signal is greater than a second value, the first function being different than the second function.
2. (Original) The pressure transducer assembly of claim 1, wherein the first function is a linear function and the second function is a linear function.
3. (Original) The pressure transducer assembly of claim 2, wherein the first function is characterized by a first slope and the second function is characterized by a second slope, wherein the first slope is greater than the second slope.
4. (Original) The pressure transducer assembly of claim 1, wherein the first slope is greater than 1.
5. (Original) The pressure transducer assembly of claim 1, wherein the first value is less than the second value.
6. (Original) The pressure transducer assembly of claim 1, wherein the first value equals the second value.

7. (Original) The pressure transducer assembly of claim 1, wherein the first value corresponds to the first output signal being at approximately 10 percent of a total sensed pressure range of the pressure transducer.

8. (Original) The pressure transducer assembly of claim 1, further comprising an analog-to-digital converter, the second output signal being connected to an input of the analog-to-digital converter.

9. (Original) The pressure transducer assembly of claim 1, wherein the range of the first output signal is the same as the range of the second output signal.

10. (Original) A method of generating an output signal for a pressure transducer, the method comprising generating the output signal according to a first function of a sensed pressure when the sensed pressure is less than a first value and generating the output signal according to a second function of the sensed pressure when the sensed pressure is greater than a second value, the second function being different than the first function.

11. (Original) The method of claim 10, wherein the first function is a linear function and the second function is a linear function.

12. (Amended) The pressure transducer assembly of claim 211, wherein the first function is characterized by a first slope and the second function is characterized by a second slope, wherein the first slope is greater than the second slope.

13. (Amended) The pressure transducer assembly of claim 10, wherein the first slope is greater than 1.

14. (Amended) The pressure transducer assembly of claim 10, wherein the first value is less than the second value.

15. (Amended) The pressure transducer assembly of claim 10, wherein the first value equals the second value.

16. (Amended) A pressure transducer assembly, comprising:

a capacitive pressure transducer producing a first output signal, the first output signal being substantially linear; and

a shaping electrical circuit producing a shaped output signal that is a first function of the first output signal when the first output signal is below a certain value, and a second function of the first output signal when the first output signal is above a certain value, the first function being different from the second function, ~~the function being characterized by at least two slopes,~~ the electrical circuit comprising a first amplifier stage for generating a shaping function.

17. (Original) The pressure transducer assembly of claim 16, wherein the shaping function includes a first slope and a second slope that is different from the first slope.

18. (Original) The pressure transducer assembly of claim 16, further comprising a second amplifier stage for applying the shaping function to the intermediate output signal.

19. (Original) The pressure transducer assembly of claim 18, wherein the second amplifier stage has a summing amplifier configuration and sums the intermediate output signal with the shaping function.

20. (Original) The pressure transducer assembly of claim 16, wherein the first amplifier stage includes a feedback path from an output of a first amplifier to an inverting input of the first amplifier and a shunt path from an output of a first amplifier to the inverting input, the feedback path being triggered above a knee point, and the shunt path being triggered below the knee point.